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SEQUENCE LISTING

<110> Richardson, Jennifer
Monahan, John

<120> METHODS OF USE OF ALPHA-METHYLACYL-CoA RACEMASE IN HORMONE
REFRACTORY AND METASTATIC PROSTATE CANCERS

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Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
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Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
          100          105          110
Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
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Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
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Ala Pro Leu Asn Leu Leu Ala Asp Phe Ala Gly Gly Gly Leu Met Cys
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Ala Leu Gly Ile Ile Met Ala Leu Phe Asp Arg Thr Arg Thr Gly Lys
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Gly Gln Val Ile Asp Ala Asn Met Val Glu Gly Thr Ala Tyr Leu Ser
          180          185          190
Ser Phe Leu Trp Lys Thr Gln Lys Ser Ser Leu Trp Glu Ala Pro Arg
          195          200          205
Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
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Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln Phe
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Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
          245          250          255
Asn Gln Met Ser Met Asp Asp Trp Pro Glu Met Lys Lys Lys Phe Ala
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Asp Val Phe Ala Lys Lys Thr Lys Ala Glu Trp Cys Gln Ile Phe Asp
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His His Asp His Asn Lys Glu Arg Gly Ser Phe Ile Thr Ser Glu Glu
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Gln Asp Val Ser Pro Arg Pro Ala Pro Leu Leu Leu Asn Thr Pro Ala
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Ile Pro Ser Phe Lys Arg Asp Pro Phe Ile Gly Glu His Thr Glu Glu
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 Gly Pro Phe Cys Ala Met Val Leu Ala Asp Phe Gly Ala Arg Val Val
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 cgc gtg gac cgg ccc ggc tcc cgc tac gac gtg agc cgc ttg ggc cgg 144
 Arg Val Asp Arg Pro Gly Ser Arg Tyr Asp Val Ser Arg Leu Gly Arg
 35 40 45

 ggc aag cgc tcg cta gtg ctg gac ctg aag cag ccg cgg gga gcc gcc 192
 Gly Lys Arg Ser Leu Val Leu Asp Leu Lys Gln Pro Arg Gly Ala Ala
 50 55 60

 gtg ctg cgg cgt ctg tgc aag cgg tcg gat gtg ctg ctg gag ccc ttc 240
 Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
 65 70 75 80

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 Arg Arg Gly Val Met Glu Lys Leu Gln Leu Gly Pro Glu Ile Leu Gln
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 Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
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 Tyr Asp Val Ser Arg Leu Gly Arg Gly Lys Arg Ser Leu Val Leu Asp
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ctg aag cag ccg ccg gga gcc gcc gtg ctg ccg cgt ctg tgc aag ccg 305
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<212> PRT

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Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
          65          70          75          80
Arg Arg Gly Val Met Glu Lys Leu Gln Leu Gly Pro Glu Ile Leu Gln
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Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
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Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
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Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
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Ser Phe Leu Trp Lys Thr Gln Lys Ser Ser Leu Trp Glu Ala Pro Arg
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Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
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Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
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Ile	Pro	Ser	Phe	Lys	Arg	Asp	Pro	Phe	Ile	Gly	Glu	His	Thr	Glu	Glu
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Ser Ser Leu Trp Glu Ala Pro Arg Gly Gln Asn Met Leu Asp Gly Gly	
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 Gly Lys Arg Ser Leu Val Leu Asp Leu Lys Gln Pro Arg Gly Ala Ala
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 Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
 65 70 75 80
 Arg Arg Gly Val Met Glu Lys Leu Gln Leu Gly Pro Glu Ile Leu Gln
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 Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
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 Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
 115 120 125
 Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
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 Ala Leu Gly Ile Ile Met Ala Leu Phe Asp Arg Thr Arg Thr Gly Lys
 165 170 175
 Gly Gln Val Ile Asp Ala Asn Met Val Glu Gly Thr Ala Tyr Leu Ser
 180 185 190
 Ser Phe Leu Trp Lys Thr Gln Lys Ser Ser Leu Trp Glu Ala Pro Arg
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 Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
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 Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln Phe
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 Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
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 260 265 270
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 Gly Thr Asp Ala Cys Val Thr Pro Val Leu Thr Phe Glu Glu Val Val
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 His His Asp His Asn Lys Glu Arg Gly Ser Phe Ile Thr Ser Glu Glu
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 Gln Asp Val Ser Pro Arg Pro Ala Pro Leu Leu Leu Asn Thr Pro Ala
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Val Glu Leu Ser Gly Leu Ala Pro Gly Pro Phe Cys Ala Met Val Leu
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ctg aag cag ccg cgg gga gcc gcc gtg ctg cgg cgt ctg tgc aag cgg      305
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Ser Asp Val Leu Leu Glu Pro Phe Arg Arg Gly Val Met Glu Lys Leu
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Gln Leu Gly Pro Glu Ile Leu Gln Arg Glu Asn Pro Arg Leu Ile Tyr
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gcc agg ctg agt gga ttt ggc cag tca gga agc ttc tgc cgg tta gct      449
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ggc cac gat atc aac tat ttg gct ttg tca ggt gga agg aac agc ata      497
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acc tcg agg aca gaa cat gtt gga tgg tgg agc acc ttt cta tac gac      593
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 Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
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 Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
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 Ser Glu Ile Glu Ser Val Gly Ser Thr Ser Arg Thr Glu His Val Gly
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 Trp Trp Ser Thr Phe Leu Tyr Asp Leu Gln Asp Ser Arg Trp Gly Ile
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 Pro Gly Pro Phe Cys Ala Met Val Leu Ala Asp Phe Gly Ala Arg Val
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 gta cgc gtg gac cgg ccc ggc tcc cgc tac gac gtg agc cgc ttg ggc 206
 Val Arg Val Asp Arg Pro Gly Ser Arg Tyr Asp Val Ser Arg Leu Gly
 35 40 45

 cgg ggc aag cgc tcg cta gtg ctg gac ctg aag cag ccg cgg gga gcc 254
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 gcc gtg ctg cgg cgt ctg tgc aag cgg tcg gat gtg ctg ctg gag ccc 302
 Ala Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro
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Arg Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln	
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 Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
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225					230					235					240
Tyr	Glu	Leu	Leu	Ile	Lys	Gly	Leu	Gly	Leu	Lys	Ser	Asp	Glu	Leu	Pro
				245					250					255	
Asn	Gln	Met	Ser	Met	Asp	Asp	Trp	Pro	Glu	Met	Lys	Lys	Lys	Phe	Ala
			260					265					270		
Asp	Val	Phe	Ala	Lys	Lys	Thr	Lys	Ala	Glu	Trp	Cys	Gln	Ile	Phe	Asp
		275					280					285			
Gly	Thr	Asp	Ala	Cys	Val	Thr	Pro	Val	Leu	Thr	Phe	Glu	Glu	Val	Val
290						295					300				
His	His	Asp	His	Asn	Lys	Glu	Arg	Gly	Ser	Phe	Ile	Thr	Ser	Glu	Glu
305					310					315					320
Gln	Asp	Val	Ser	Pro	Arg	Pro	Ala	Pro	Leu	Leu	Leu	Asn	Thr	Pro	Ala
				325					330					335	
Ile	Pro	Ser	Phe	Lys	Arg	Asp	Pro	Phe	Ile	Gly	Glu	His	Thr	Glu	Glu
			340					345					350		
Ile	Leu	Glu	Glu	Phe	Gly	Phe	Ser	Arg	Glu	Glu	Ile	Tyr	Gln	Leu	Asn
		355					360					365			
Ser	Asp	Lys	Ile	Ile	Glu	Ser	Asn	Lys	Val	Lys	Ala	Ser	Leu		
370						375					380				